

REMARKS

The embodiments of prior applications by the same inventor of the present application (e.g., U.S. Patent Applications 09/496,172, which were filed on February 2, 2000) were mislabeled as “prior art”. These embodiments were prior inventions disclosed in the prior applications of the same inventor. Thus, Figures 1-4 and the corresponding description for these embodiments of prior applications are currently amended to remove the labels of “prior art”.

Claim 4 was objected to for being identical to claim 3. Claims 1-7 were rejected under 35 U.S.C. 102(e) as being unpatentable over Kloba (U.S. Patent No. 6,553,412). Claims 1-7 are cancelled. New claims 8-73 are added. Thus, claims 8-73 are pending.

Applicant respectfully submits that Kloba does not teach the subject matter as claimed.

Kloba discloses a web-server-device system (see, e.g., Fig. 1W of Kloba), in which the server of Kloba encodes data from the web in a tokenized codification format for transmission to the device of Kloba (see, e.g., Col. 5, lines 18-35). For example, HTML document is encoded as tokenized, compressed version of HTML; and, resources are encoded as tokenized, compressed version of resources (see, e.g., Fig. 1W of Kloba). After receiving the tokenized codification format of the data, the device of Kloba layouts and renders the tokenized, compressed data for display. Fig. 1A of Kloba shows that each of client devices 108A and 108B has “Layout + Rendering Module” (134A and 134B). Col. 11, lines 3-15, of Kloba describes the operation of Layout and Rendering Module 134, which

shows that Layout and Rendering Module 134 is responsible for drawing items on the display, including images, text, links, etc.

The web-server-device system of Kloba is substantially different from the systems according to embodiments of the present invention. At least one embodiment of the present invention uses a host computer (e.g., 1 in Figure 7) to render into an image the remote documents requested by the remote device (e.g., 18 in Figure 7). The remote device receives the image of the requested document in a compressed format from the host computer and displays the image. Since the image is typically larger than the size of the screen of the remote device, a user can scroll the image under the exclusive control of the device to see different portions of the document. Since the host computer layouts and renders the document into an image, the remote device does not need the high computer power and the sophisticated browser software program to render the document for display. Thus, the device with limited processing power can display documents rendered in high quality, since the rendering is performed at the host computer.

For example, claim 8 recites:

8. A method implemented on a server to serve documents to a remote device, the method comprising:
 - receiving at the server from the remote device a request for a document, the document including a first portion containing displayable text in a non-image format;
 - rendering, at the server, the first portion of the document containing the displayable text as a first image segment of an image of the entire document in response to the request;
 - transmitting the first image segment in a compressed image format from the server to the remote device for display;

automatically rendering, at the server, a second portion of the document as a second image segment of the image of the entire document, the second portion being outside a display area of the remote device available for displaying the document when the first image segment is displayed on the remote device; and
automatically transmitting the second image segment from the server to the remote device.

Kloba does not disclose “rendering, at the server, the first portion of the document containing the displayable text as a first image segment of an image of the entire document in response to the request” and “automatically rendering, at the server, a second portion of the document as a second image segment of the image of the entire document, the second portion being outside a display area of the remote device available for displaying the document when the first image segment is displayed on the remote device”, since Kloba teaches using the client device to layout and render the document for display. Kloba (Col. 6, lines 10-20) shows optimizing content of web pages for mobile devices. Memory usages are among the factors considered for the optimization. However, such a description does not teach using the server to render a web page, including displayable text, into an image. Fig. 4B of Kloba shows hashed device state, which does not show the automatic scrolling of the browser window *at the server* to render and capture all image segments of the entire document for the remote device. However, for example, claim 9 recites:

9. The method of claim 8, wherein the first portion of the document is rendered as the first image segment in a window of a browser on the server; the second portion of the document is automatically scrolled into the window of the browser to render the second portion of the document as the second image segment.

The browser which is on the server is used to render the document into an image. This is very different from using a browser program running locally on the client device to display the web document. Note that original claims 3 and 4 (currently canceled) are not identical, since claim 3 recites “during the period the image is sent” while claim 4 recites “after the image has been sent”. Similarly, claim 10 recites “the second portion of the document is automatically scrolled into the window of the browser *while* the first image segment *is being transmitted* from the server to the remote device”, while claim 11 recites “the second portion of the document is automatically scrolled into the window of the browser *after* the first image segment *is transmitted* from the server to the remote device.”

Further, claim 12 recites “a size of the window of the browser is substantially equal to a size of the display area of the remote device for the document”. When the size of the window of the browser at the server is the same as the display area of the remote device, the need for scroll left-to-right can be reduced (see the second paragraph on page 9). Claim 13 recites “a size of the first image segment is slightly larger than a size of the display area of the remote device available for displaying the document”. The size of the first image segment rendered at the server can be slightly larger than the display area of the remote device so that the user of the remote device may scroll around slightly without going out the first image segment (see the second paragraph on page 14).

Claims 9-22 depend from claim 8. Thus, claims 9-22 are patentable over Kloba at least for the reasons stated for claim 8.

Further, claim 21 recites:

21. The method of claim 8, further comprising:

receiving, at the server from the remote device, a user input directed
by a user at the remote device to the document;
retrieving information from a database according to the user input; and
applying at the server the information to the document as input to the
document to retrieve a response.

In one embodiment of the present invention, credit card information are stored on a database which can be retrieved from the database and applied to the document at the host computer so that the user of the remote device does not have to send the credit card information over the communication link between the host computer and the remote device. The document is rendered in a browser on the host computer. The image of the document is transmitted to the remote device for display. Kloba does not show a server rendering the document. Kloba does not have a description of the server applying information from a database to the document to retrieve a response.

For similar reasons, claim 23 and its dependent claims 24-27 are patentable over Kloba. Further, claim 24 recites “the browser sends data including the information to a source remote to the server to retrieve a response”; and, claim 25 recites “the data is encrypted when sent from the server to the source.”

Further, claim 22 recites:

22. The method of claim 8, further comprising:
receiving, at the server from the remote device, a user input directed
by a user at the remote device to the document to drag an
object;
applying at the server the user input to drag to the document to render
a refreshed image segment of the document; and

transmitting the refreshed image segment of the document from the server to the remote device.

In one embodiment of the present invention, the drag operation is performed at the host computer. The click down, drag and click up inputs at the remote device are transmitted to the host computer, which applies the inputs to generate a refreshed image. This is significantly different from the processing of drag event by a browser program running locally on a client device. A mouse required to operate on a web page does not indicate the specific arrangement as claimed. For similar reasons, claim 28 and its dependent claim 29 are patentable over Kloba.

Claims 30-51 recite machine readable media containing executable computer program instructions which when executed by a data processing system cause said system to perform the methods of claims 8-29. Claims 52-73 recite servers for performing the methods of claims 8-29.

Thus, at least for the above reasons, Applicant respectfully submits that the pending claims are patentable over Kloba.

Please charge any shortages or credit any overages to Deposit Account No. 02-2666. Furthermore, if an extension is required, Applicant hereby requests such extension.

Respectfully submitted,

Dated: 2/6, 2004



Lehua Wang
Reg. No. 48,023
12400 Wilshire Boulevard
Seventh Floor
Los Angeles, California 90025-1026
(408) 720-8300